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| **COVERING BOTH CLE’S AND CCSS**  **(State correlation is not a perfect match-What makes them the same….what makes them different?)**  1.1.1  Identify, describe and analyze patterns and functions (including arithmetic and geometric sequences) from real-world contexts using tables, graphs, words and symbolic rules.   * F-IF.3. Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. *For example, the Fibonacci sequence is defined recursively by f(0) = f(1) = 1, f(n+1) = f(n) + f(n-1) for n ≥ 1.*   1.1.4 Write both a recursive rule and an explicit rule for a sequence.   * F-BF.2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.★   1.2.1 Represent functions (including linear and nonlinear functions such as square, square root and piecewise functions) with tables, graphs, words and symbolic rules; translate one representation of a function into another representation.  CC.N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.  A.SSE.1a Interpret parts of an expression, such as terms, factors, and coefficients.  1.1.7 Recognize that exponential functions represent constant multiplicative change, written symbolically as y = *a* ∙ *bx*; a unit increase in the independent variable (*x*) causes the value of the dependent variable (*y*) to be multiplied by *b*; geometric sequences are exponential functions.   * + F-LE.1c Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.   1.1.8 Compare and contrast linear and exponential growth. (In our Unit 7)  1.1.9 Illustrate and compare functions using a variety of technologies (i.e., graphing calculators, spreadsheets and online resources). (In our Unit 7)  1.1.10 Make and justify predictions based on patterns. (In our Unit 5)  1.2.1 Represent functions (including linear and nonlinear functions such as square, square root and piecewise functions) with tables, graphs, words and symbolic rules; translate one representation of a function into another representation. (In our Unit 3)  3.1.1 Make, test and describe conjectures involving properties of two- and three-dimensional figures using models. (In our Geometry course) |
| **COVERING BOTH CLE’S AND CCSS AND SCIENCE INTEGRATION** |
| **CLE’s but not CCSS**  1.1.2 Determine the *n*th term of a sequence with and without the use of technology.   * 4.OA.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*   1.1.3 Translate one representation of a pattern into another representation.   * 4.OA.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*   1.3.1 Simplify expressions and solve equations and inequalities.  CC.5.OA.1 Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.  CC.5.NF.1 Add and subtract fractions with unlike denominators (including mixed numbers)by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)*  CC.5.NF.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g.,by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.*  CC.6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g.,by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?*  CC.6.EE.1 Write and evaluate numerical expressions involving whole-number exponents.  CC.6.EE.2c Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas V = s3 and A = 6 s2 to find the volume and surface area of a cube with sides of length s = 1/2.*  CC.7.NS.2a Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as(–1)(–1) =1 and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.  CC.7.NS.2b Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If *p* and *q* are integers, then –(*p*/*q*)=(–*p*)/*q* = *p*/(–*q*). Interpret quotients of rational numbers by describing real­ world contexts.  CC.7.NS.2c Apply properties of operations as strategies to multiply and divide rational numbers.  CC.7.NS.2d Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.  CC.7.NS.3 Solve real-world and mathematical problems involving the four operations with rational numbers.1  1.3.5 Pose a hypothesis based upon an observed pattern and use mathematics to test predictions.   * 4.OA.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.* |
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